

WHAT IS CLAIMED IS:

- 1 1. A method of compensating for delays induced by anti-jamming
2 processing, the method comprising:
3 determining a delay error associated with the anti-jamming
4 processing; and
5 adjusting ionospheric corrections in response to the delay error.
- 1 2. The method of claim 1, wherein the delay is calculated in a
2 distortion calculator associated with a digital anti-jamming processing circuit.
- 1 3. The method of claim 2, wherein a distortion calculator determines
2 the delay error in response to weight values utilized by the digital anti-jamming
3 processing circuit.
- 1 4. The method of claim 2, wherein the delay error is provided as serial
2 data from the anti-jamming processing circuit.
- 1 5. The method of claim 4, wherein the serial data indicates a delay
2 error parameter at a specific time period.
- 1 6. The method of claim 1, wherein the delay error parameter is utilized
2 to adjust raw pseudo range values before ionospheric corrections are made.
- 1 7. The method of claim 3, wherein the distortion calculator is
2 implemented in a digital signal processor.
- 1 8. The method of claim 1, wherein a derivative of the delay error is
2 used to adjust the ionospheric corrections.
- 1 9. A positioning system including an anti-jamming processing circuit,
2 the positioning system comprises;

3 a distortion calculator for calculating a delay error associated with
4 the digital anti-jamming processing circuit; and
5 an ionospheric correction circuit for providing ionospheric
6 corrections for pseudo range values derived from data provided by the digital
7 anti-jamming processing circuit, wherein the ionospheric corrections circuit
8 calculates the ionospheric corrections in response to the delay error to reduce
9 errors induced from the digital anti-jamming processing circuit.

1 10. The system of claim 9, where in the digital anti-jamming processing
2 circuit is implemented in an application specific integrated circuit.

1 11. The system of claim 10, wherein the digital anti-jamming
2 processing circuit includes a digital signal processor for implementing the
3 distortion calculator and the application specific integrated circuit includes a
4 weight application circuit.

1 12. The system of claim 9, wherein the ionospheric correction circuit
2 receives raw pseudo ranges and adjusts the raw pseudo ranges in accordance
3 with the delay error before creating corrected pseudo range values.

1 13. The system of claim 9, wherein the ionospheric correction circuit is
2 included in a GPS receiver.

1 14. The system of claim 9, wherein the delay error is provided as serial
2 data.

1 15. The system of claim 9, wherein the digital anti-jamming processing
2 circuit is a space time adaptive processing circuit or space frequency adaptive
3 processing circuit.

1 16. An apparatus for removing anti-jamming induced errors from
2 ionospheric corrections, the apparatus comprising:

3 means for determining a delay error associated with anti-jamming
4 processing; and
5 means for calculating ionospheric corrections, the means for
6 calculating ionospheric corrections either receiving pseudo range values adjusted
7 by the delay error or calculates the ionospheric corrections in accordance with
8 the delay error.

1 17. The apparatus of claim 16, wherein the means for determining a
2 delay error is a digital signal processor.

1 18. The apparatus of claim 17, wherein when the pseudo range values
2 are associated with a GPS.

1 19. The apparatus of claim 17, wherein the anti-jamming processing
2 utilizes a beam forming algorithm.

1 20. The apparatus of claim 19, wherein the beam forming algorithm
2 utilizes space time adaptive processing and/or space frequency adaptive
3 processing.